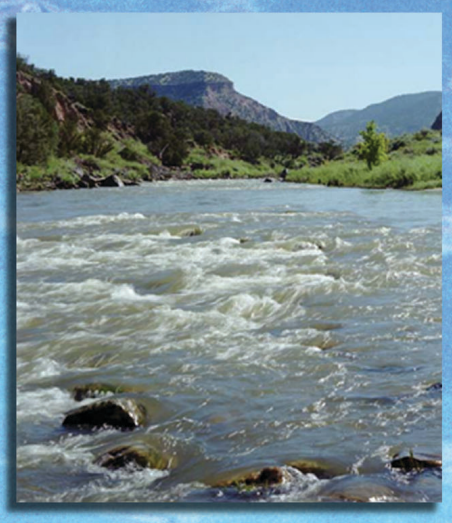
Frontiers in Science

Public Lecture Series

Sponsored by the Fellows of Los Alamos National laboratory



The Groundwaters of Northern New Mexico

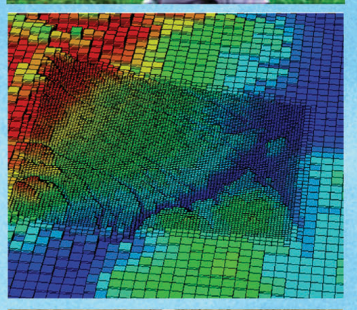
Tracing the origins of the water we drink

Elizabeth H. Keating
Hydrology, Geochemistry, and Geology Group

Groundwater aquifers in Northern New Mexico store a vast amount of fresh water, supplying the majority of the water we drink. The combined impacts of drought and expanding populations in the region, however, are causing aquifer water levels to decline and wells to run dry.

Answers to such questions as "how fast are we depleting the groundwater resource?" and "how much fresh water is left?" require careful research in the hydrogeology of the aquifers. In Northern New Mexico, a variety of traditional approaches are being used to probe the aquifers, including mapping geologic features, measuring stream and spring flow, and hydraulic testing of wells. In addition, novel approaches such as using radar mounted on satellites that can measure subtle changes in the land surface and gravity meters that can measure changes in aquifer storage over time are being developed.

Our research focuses on the Española Basin and uses three-dimensional mathematical computer models of groundwater flow to interpret these various hydrogeologic data and to suggest possible future scenarios in local groundwater basins. This research is one important component of our collective effort to protect this precious resource.



Los Alamos Thursday, 2 October 2003 at 7:30 pm
Duane W. Smith Auditorium, Los Alamos High School

Española Wednesday 8 October 2003 at 7:30 pm
Center for the Arts Amphitheater,
Northern New Mexico Community College
Co-sponsored by Northern New Mexico Community College.

Taos Thursday, 9 October 2003 at 7:30 pm
Taos Convention Center

Santa Fe Wednesday 22 October 2003 at 7:30 pm
James A. Little Theater, New Mexico School for the Deaf

Albuquerque Thursday, 23 October 2003 at 7:30 pm
New Mexico Museum of Natural History and Science
Co-sponsored by The New Mexico Museum of Natural History and Science.

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